

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

NORFOLK & WESTERN RAILWAY

FLAT TOP, VA.

MARCH 21, 1937

INVESTIGATION NO. 2163

SUMMARY

Inv-2163

Railroad: Norfolk & Western
Date: March 21, 1937
Location: Flat Top, Va.
Kind of accident: Side collision
Trains involved: Helper engine : Freight
Train numbers: Extra : Extra 2086
Engine numbers: 2505 : 2086
Consist: Light : 88 loads, 13 empties, caboose
Speed: 4 m.p.h. : 20-40 m.p.h.
Track: Compound curve to left ranging to 8° 30' on westward main track. Curve to left 5° 3' 27" on storage track. Grade 0.162 percent ascending.
Weather: Clear
Time: 12:25 p. m.
Casualties: 1 killed; 2 injured.
Cause: Light engine fouled clearance point on siding while another train was passing.

May 12, 1937.

To the Commission:

On March 21, 1937, there was a side collision between a light engine and a freight train on the Norfolk & Western Railway at Flat Top, Va., which resulted in the death of one trespasser and the injury of two trespassers.

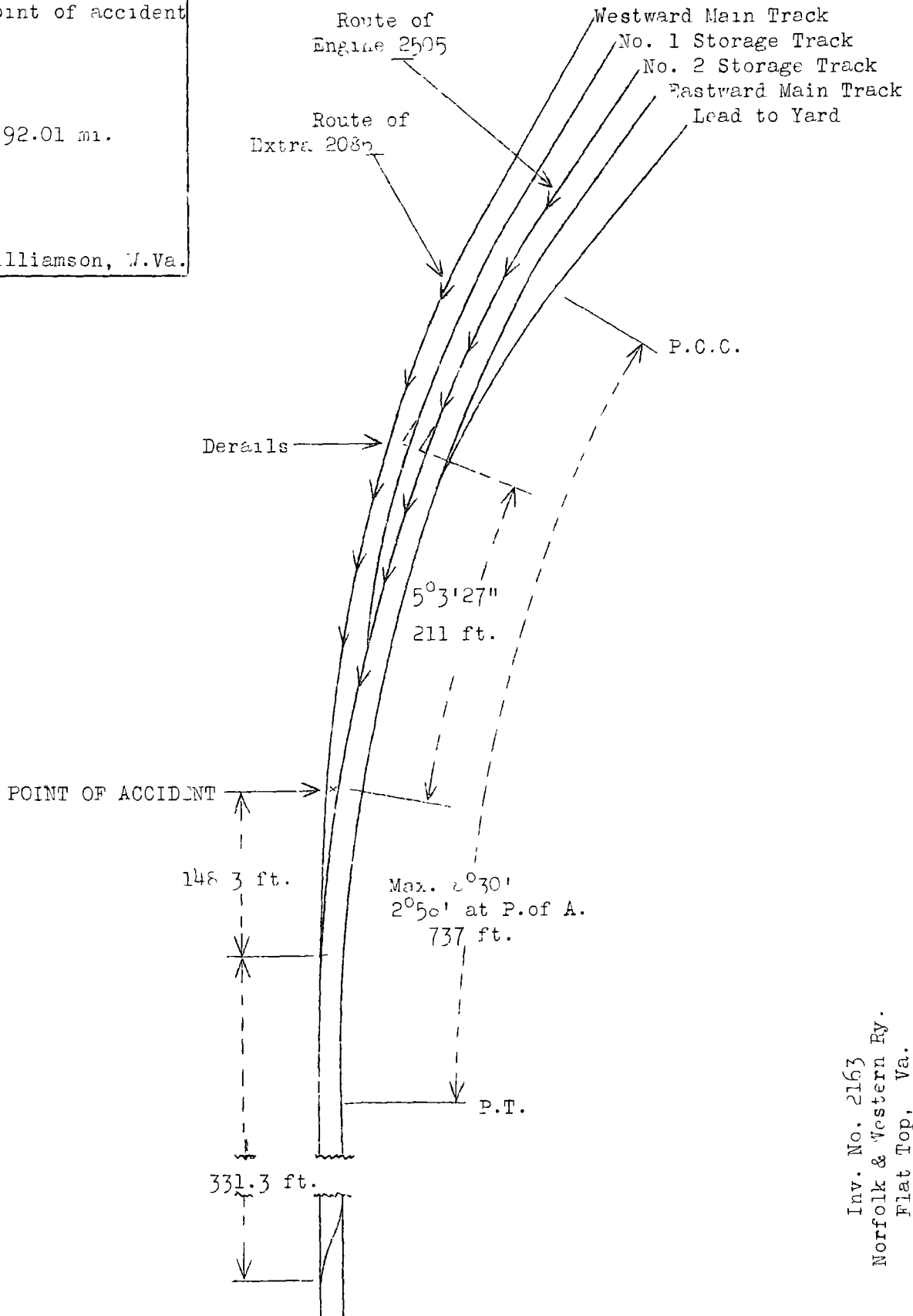
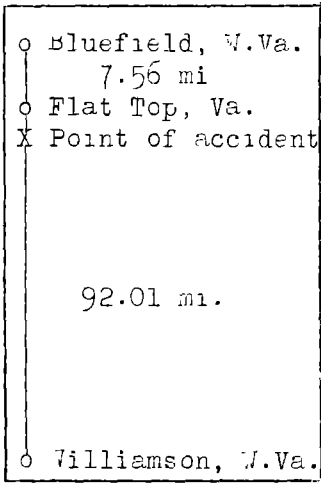
Location and method of operation

This accident occurred on that part of the Pocahontas Division which extends between Bluefield and Williamson, W. Va., a distance of 99.57 miles; in the vicinity of the point of accident this is a double-track line over which trains are operated by timetable, train orders and an automatic block-signal system. Both electric and steam locomotives are in use. The locomotive involved in this accident is electrically propelled and consists of two permanently coupled units, each mounted on two trucks. Two motors are installed on each truck, and all of the motors may be operated from either cab. The overall length of this locomotive is 105 feet 8 inches.

The yard at Flat Top is located west of the station and the main tracks lie to the north of the yard. Two storage tracks are located between the eastward and westward main tracks in this vicinity and the four tracks from south to north are: eastward main track; No. 2 storage track; No. 1 storage track, and the westward main track. The main track switch at the west end of No. 2 storage track is located 2,050 feet west of the station and there is a derail on the north rail of this track 378 feet east of this switch; this derail is operated by a New Century switch stand located 4 feet 2 inches north of the north rail. The west switch of a trailing point crossover is located 331.3 feet west of the storage track switch. The accident occurred at the coupling point, 146.3 feet east of the storage track switch and 211 feet west of the derail.

Approaching the point of accident from the east, the westward main track is tangent for several hundred feet, followed by a compound curve to the left 737 feet long with a maximum curvature of $8^{\circ} 30'$, the curvature being $2^{\circ} 58'$ at the point of accident which was 90 feet from the west end of the curve. The west end of the storage track diverges to the left on a $5^{\circ} 31' 27''$ curve. The grade is 0.162 percent ascending for 800 feet to a point 60 feet east of the point of accident and then it is level for 200 feet.

The weather was clear at the time of the accident which occurred at 12:25 p.m.



Inv. No. 2163
 Norfolk & Western Ry.
 Flat Top, Va.
 Mar. 21, 1937

Description

Double-unit electric locomotive No. 2505, engaged in helper service shoving east-bound freight trains from Flat Top to Bluefield, arrived at the west end of Flat Top yard, from the east, at 11:55 a.m. and backed in upon No. 2 storage track where it stopped east of the derail to await the arrival of Extra 2510 East which it was to help to Bluefield. Extra 2510 East and Extra 2086 West arrived at Flat Top almost simultaneously, and while Extra 2086 West was passing No. 2 storage track switch, the 26th car in the train was struck by engine 2505 which was moving on the storage track at a speed of about four miles per hour.

Extra 2086, a west-bound freight train, consisted of 101 cars and a caboose, hauled by engine 2086, and was in charge of Conductor Hickman and Engineman Martin. This train departed from Bluefield, 7.56 miles from Flat Top, at 12.13 p.m., according to the train sheet, and while passing the No. 2 storage-track switch at the west end of Flat Top yard, at a speed of 20 to 40 miles per hour, the 26th car in the train was sideswiped by engine 2505.

The 26th to 28th cars, inclusive, were raked but not derailed, and the next 17 cars were derailed and stopped in various positions within a distance of 180 feet, on and adjacent to the westward main track, seven being destroyed and the balance badly damaged. Locomotive 2505 stopped on its side on the eastward main track with its west end 211 feet west of the point of collision.

Summary of evidence

Engineman Myers, of Engine 2505, stated that during his tour of duty he had shoved a train east to Bluefield, and in making the coupling to that train he had used the independent brake valve in the east cab and had secured satisfactory operation of the brake. On the return trip to Flat Top he operated the motor from the west end and upon his arrival he backed his engine into No. 2 storage track and stopped east of the derail to await the arrival of Extra 2510 East which they were to assist to Bluefield. He then cut out the brake in the west cab, took out the reverse lever and went to the east cab, examining the motor switches as he went, and cut in the brake and set the reverse lever in the east cab. At the time Extra 2510 East arrived at Flat Top, Extra 2086 West was approaching and while the latter train was passing Fireman Martin removed the derail from the track behind his engine, but did not give any signal to move. Although there was nothing to be gained by so doing, Engineman Myers decided to move toward the main track switch, but without any intention of

going west of the derail, although there was plenty of room for his engine between the derail and the clearance point. Engineman Myers at first explained the occurrence of the collision by stating that without his being conscious of the fact, the engine continued its movement westward after he had thought it stopped, or else it started to move after it had been stopped, but later stated that the collision resulted because of his failure to correctly judge the distance to the clearance point.

The statement of Fireman Martin, of engine 2505, agreed with that of Engineman Myers concerning events prior to the arrival of Extra 2086 West. The controls in the west cab were used in backing engine 2505 in upon No. 2 storage track, and when the engine had reached a point east of the derail, he replaced the derail and entered the west cab of the motor. Engineman Myers cut out the brake in the west cab and walked through to the east cab where he cut in the brake. Both he and the engineman sat in the east cab until the arrival of Extra 2086, after which he told the engineman that he would throw the derail, and then left the cab. After throwing the derail he walked to the opposite side of the track, on the right side of the engine. He did not give any signal but the engine started to move toward the main track switch and he assumed that the engineman intended to move beyond the derail, although this was a move he had never seen made before. The engineman could not have known the position of the derail unless he had gone to the left or south side and observed the switch banner. When the engine had passed the derail it stopped and he returned the derail to normal position. A moment or two later he observed the engine again moving toward the main track, and realizing that it was reaching a dangerous position he called a warning to the engineman which apparently was unheard, he ran and boarded the east end of the engine and had just opened the door and called another warning when the engineman made an emergency application with the automatic brake valve but by this time the west cab had already collided with Extra 2086, which was moving at a speed of about 35 or 40 miles per hour. The brakes were in good condition, it did not occur to him to open the angle cock.

Flagman Simmons, of Extra 2510, stated that his train was to be pushed from Flat Top to Bluefield by engine 2505; when his train reached Flat Top he got off at the switch leading from the westward main track to No. 2 storage track for the purpose of piloting engine 2505 to the rear of his train. The main track switch indicator was red, and in a short time Extra 2086 West appeared. Before the engine of that train had passed the switch he saw the fireman of engine 2505 remove the storage track derail but he did not see him give any signal. When he first noticed engine 2505 moving it was about 40 or 50 feet from the

fouling point with the main track and was moving faster than a man could walk. At that time he was about 5 or 6 car lengths west of engine 2505 and gave stop signals to Engineman Myers who was plainly visible in the east cab. Engineman Myers blew one blast of the whistle but did not stop, nor did the engine slow down until it struck Extra 2086. After the accident he talked with Engineman Myers who stated that he had arranged with the fireman to remove the derail so that he could back the engine between the derail and the fouling point, but he had misjudged the distance. Brakeman Simmons stated that at the time of the collision the weather was clear and Extra 2086 was moving about 35 or 40 miles per hour.

Conductor Hickman, of Extra 2086 West, stated that his train was moving at a speed of about 35 miles per hour when the 26th car was struck by engine 2505. He was in the caboose when an emergency application occurred, and this was the first he knew that anything was wrong; this was about 12:25 p.m.

Estimates of the speed of their train at the time of accident, made by Engineman Martin, Fireman Lowe, and Brakemen Taylor and Cobbs, of Extra 2086, ranged from 20 to 35 miles per hour.

Discussion

Rule 84 in the book of rules reads as follows:

"A train must not start until the proper signal is given".

Other rules provide that when a train or engine is waiting to cross from one track to another while a train is approaching or passing on one of the tracks involved, all switches connected with the movement must be secured in normal position; and that the normal position of a derailing switch is to derail.

The evidence is to the effect that Engineman Myers moved his engine from its position east of the derail on No. 2 storage track toward the westward main track in violation of these instructions, and that in so doing he misjudged the distance to the clearance point, with the result that his engine sideswiped Extra 2086 West.

In his statement Engineman Myers at first professed to be unable to account for the occurrence of the accident, as he claimed to have brought the engine to a stop after moving to a point west of the derail. He advanced the theory that either the engine was not stopped when he thought it was, the accelerating

lever had not been fully closed by him, or that defective switches had permitted the flow of current to the motors after the accelerating lever had been closed. Later he stated that being on the inside of the curve while moving toward the main track he had misjudged the distance between the derail and the clearance point.

Conclusions

This accident was caused by engine 2505 fouling the clearance point of a switch while another train was passing.

Respectfully submitted,

W. J. PATTERSON,

Director.